

Notice of Allowability	Application No.	Applicant(s)	
	09/822,586	STONE ET AL.	
	Examiner	Art Unit	
	Wes Tucker	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to after-final amendment filed 12-13-05.
2. ☒ The allowed claim(s) is/are 29-34, 36-44, 46-54 and 56.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT^{1*} or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
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DETAILED ACTION

Response to Amendment

1. Applicant's after-final response filed December 13th 2005 has been entered and made of record.
2. Applicant has amended claims 29, 39 and 49. Claims 1-28, 35, 45 and 55 have been cancelled. Claims 29-34, 36-44, 46-54 and 56 are now pending.
3. Applicant's remarks in view of the newly amended claims and the newly presented terminal disclaimer are found persuasive. Reasons for allowance are presented below.

Terminal Disclaimer

4. The terminal disclaimer filed on December 13th 2005 disclaiming the terminal portion of any patent granted on this application, which would extend beyond the expiration date of U.S. Patent 6,266,452 which is commonly assigned has been reviewed and is accepted. The terminal disclaimer has been recorded.

5. The affidavit filed on December 13th 2005 in view of the terminal disclaimer filed under 37 CFR 1.131 is sufficient to overcome the combination of references to McGuire and Herman.

Allowable Subject Matter

6. Claims 29-34, 36-44, 46-54 and 56 are allowed.

The following is an examiner's statement of reasons for allowance:

With regard to the independent claims 29, 39 and 49, the primary cited reference to McGuire was cited to teach the aspects of nonlinear pre-filtering and thresholding to the images and registering the images by evaluating normalized correlation between the first and second images as a function of relative image position. The secondary reference of U.S. Patent 6,075,905 to Herman et al. was cited to teach the practice of applying an edge enhancement to the first and second images to make edges more prominent as claimed in dependent claims 35, 45 and 55. However in view of the newly amended independent claims to include this secondary feature and the presently filed terminal disclaimer and the fact that the McGuire patent and the present application are currently owned, that rejection under 103(c) is withdrawn. McGuire was the closest prior art of record found. No other found prior art teaches or fairly suggests the claimed features of a method for blind registration of first and second images out of registration, the method comprising the steps of applying non-linear pre-filtering and thresholding to the first and second images, thereby enhancing cross-spectral correlation between the first and second images, wherein applying the non-linear pre-filtering further comprises applying edge enhancement filter to make edges in the first and second images more prominent; and registering the first and second images by evaluating normalized between the first and second images as a function of relative position, where the normalized correlation is expressed as vector correlations computed in the Fourier

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domain. Independent claims 29, 39 and 49 and all of the subsequent dependent claims are therefore found to be allowable.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wes Tucker whose telephone number is 571-272-7427. The examiner can normally be reached on 9AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-2214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wes Tucker

6-8-06


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